

### Claims

1. An apparatus for using a sample container through which X-ray, ultraviolet light and visible light are transmissible and evaluating specific macromolecule crystal existing in the sample container is characterized by comprising:

a sample detecting stage for detecting the specific macromolecule crystal in the sample container;

an X-ray measuring stage that is disposed so as to be spaced from the sample detecting stage and carries out an X-ray diffraction measurement of the specific macromolecule crystal;

feeding means for feeding the sample container from the sample detecting stage to the X-ray measuring stage; and

control means for recognizing the position of the specific macromolecule crystal on the basis of information achieved in the sample detecting stage and controlling the feeding means on the basis of the position information to position the specific macromolecule crystal to a sample disposing portion of the X-ray measuring stage.

2. The specific macromolecule crystal evaluating device according to claim 1, wherein the sample detecting stage comprise:

specific macromolecule crystal detecting means

for irradiating ultraviolet light to the sample container and detecting a fluorescent image emitted from the sample in the sample container; and

crystal detecting means for detecting the outline of the sample from a visible light image of the sample existing in the sample container, wherein the control means judges as a specific macromolecule crystal the sample for which the fluorescent image is detected by the specific macromolecule detecting means and the outline showing the crystal is detected by the crystal detecting means, and recognizes the position of the specific macromolecule crystal.

3. The specific macromolecule crystal evaluating device according to claim 1, wherein the X-ray measuring stage comprises:

X-ray irradiating means for irradiating X-ray from the upper side or lower side to the specific macromolecule crystal in the sample container disposed in the sample disposing portion;

X-ray detecting means that is disposed so as to confront the X-ray irradiating means through the sample container, and detects diffracted X-ray from the specific macromolecule crystal transmitted through the sample container;

a rotary arm for supporting the X-ray

irradiating means and the X-ray detecting means; and

a rotationally driving mechanism for rotating the rotary arm with respect to the substantially horizontal shaft center by any angle.

4. The specific macromolecule crystal evaluating device according to claim 1, wherein the feeding means comprises a sample table on which a sample container is mounted, an XYZ table for mounting the sample table thereon and moving the sample table in X and Y directions orthogonal to each other on the horizontal plane and in the height direction, and a slider for feeding the XYZ table from the sample detecting stage to the X-ray measuring stage.